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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROSS W. CALLON

Appeal 2008-1002
Application 10/080,865
Technology Center 2100

Decided: September 29, 2008

Before JOSEPH L. DIXON, ALLEN R. MACDONALD, and
THU A. DANG, *Administrative Patent Judges*.

DANG, *Administrative Patent Judge*.

DECISION ON APPEAL

I. STATEMENT OF CASE

Appellant appeals the Examiner's final rejection of claims 1-6, 9-15, 17-38, 40-43, 45-51, 61, 62, and 64 under 35 U.S.C. § 134(a) (2002). We have jurisdiction under 35 U.S.C. § 6(b) (2002).

A. INVENTION

According to Appellant, the invention relates to data processing systems, and particularly, relates to systems and methods for filtering network traffic based on attacks (Spec. 1, para. [0002]).

B. ILLUSTRATIVE CLAIMS

Claims 1 and 61 are exemplary and are reproduced below:

1. A system for detecting and responding to an attack, comprising:
 - a first device attached to a network and configured to:
 - detect an attack based on received traffic,
 - create attack information, and
 - forward the attack information to the network using a link state routing protocol or a path vector routing protocol; and
 - a second device configured to receive the attack information and detect particular traffic based on the attack information.
61. A method for responding to an attack, comprising:
 - receiving attack information at a central management system from a first device via a network;
 - managing a response to the attack at the central management system;
 - receiving, at the central management system, additional attack information from other devices via the network; and

communicating, by the central management system, information associated with the additional attack information to the first device.

C. REJECTIONS

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Chen	US 2002/0032854 A1	Mar. 14, 2002 (filed Sept. 7, 2001)
Goldstone	US 2002/0101819 A1	Aug. 1, 2002 (filed Jan. 31, 2001)
Fedyk	US 6,560,654 B1	May 6, 2003 (filed Oct. 12, 1999)
Nguyen	US 2002/0016926 A1	Feb. 7, 2002 (filed Apr. 26, 2001)

Claims 61, 62, and 64 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Chen;

Claims 1-6, 9-15, 17, 18, 20-29, 32-38, 40-43, 45-48, 50, and 51 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Goldstone and Fedyk; and

Claims 19, 30, 31, and 49 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Goldstone, Fedyk, and Nguyen.

We affirm.

II. ISSUES

The issues are whether Appellant has shown that the Examiner erred in finding that:

(A) claims 61, 62, and 64 are anticipated under 35 U.S.C. § 102(e) by Chen, and in particular, Chen discloses “communicating, by the central management system, information associated with the additional attack information to the first device” (Claim 61); and

(B) claims 1-6, 9-15, 17-38, 40-43, and 45-51 are unpatentable under 35 U.S.C. § 103(a), and in particular, one having ordinary skill in the art at the time the invention was made would have combined Goldstone and Fedyk to “forward the attack information to the network using a link state routing protocol or a path vector routing protocol” (Claim 1), and would have further combined Nguyen to the teachings of Goldstone and Fedyk.

III. FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

Chen

1. Chen discloses protecting against attacks occurring in a network. In Chen, a mobile packet filtering program is installed on an edge router 102 which monitors transferred incoming packets. If an attack is detected, in step S010, an attack source retrieval module holding the information on the attack packets currently being

retrieved is sent to the upstream routers 103, 104, and 111. In step S011, by executing the attack source retrieval module in those upstream routers that have received the attack source retrieval module, the attack source retrieval module retrieves the optimum positions for defending against the attack and sends back the results to the downstream routers that are the source of the transmissions. In step S012, the original router receives the retrieval results from the upstream router (pp. 3-4, [0053-0055]; Figs. 1-4).

Goldstone

2. In Goldstone, upon detection of an attack, the attack client's IP address, determined from the request packet, is automatically communicated upstream (130) to the ISP router (50), through which the request was passed (pg. 3, [0042]; Fig. 4).

Fedyk

3. Fedyk discloses managing message traffic in a link state routing network which utilizes several families of routing protocols, including "link state routing protocols" (col. 1, ll. 24-32).

IV. PRINCIPLES OF LAW

In rejecting claims under 35 U.S.C. § 102, "[a] single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation." *Perricone v. Medicis Pharm.*,

432 F.3d 1368, 1375-76 (Fed. Cir. 2005) (citation omitted). “Anticipation of a patent claim requires a finding that the claim at issue ‘reads on’ a prior art reference.” *Atlas Powder Co. v. IRECO, Inc.*, 190 F.3d 1342, 1346 (Fed. Cir. 1999) (“In other words, if granting patent protection on the disputed claim would allow the patentee to exclude the public from practicing the prior art, then that claim is anticipated, regardless of whether it also covers subject matter not in the prior art.”) (citations omitted).

The *claims* measure the invention. *See SRI Int’l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc). “[T]he PTO gives claims their ‘broadest reasonable interpretation.’” *In re Bigio*, 381 F.3d 1320, 1324 (Fed. Cir. 2004) (quoting *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000)). “Moreover, limitations are not to be read into the claims from the specification.” *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) (citing *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989)).

Section 103 forbids issuance of a patent when “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.”

KSR Int’l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1734 (2007).

The Supreme Court emphasized “the need for caution in granting a patent based on the combination of elements found in the prior art,” and discussed circumstances in which a patent might be determined to be obvious. *KSR*, 127 S. Ct. at 1739 (citing *Graham v. John Deere Co.*, 383

U.S. 1, 12 (1966)). The Court reaffirmed principles based on its precedent that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* The operative question in this “functional approach” is thus “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.* at 1740.

“Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *Id.* at 1742. The Court noted that “[c]ommon sense teaches . . . that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.” *KSR*, 127 S. Ct. at 1742. “A person of ordinary skill is also a person of ordinary creativity, not an automaton.” *Id.*

In the absence of separate arguments with respect to claims subject to the same rejection, those claims stand or fall with the claim for which an argument was made. *See In re Young*, 927 F.2d 588, 590 (Fed. Cir. 1991). *See also* 37 C.F.R. § 41.37(c)(1)(vii)(2004).

V. ANALYSIS

35 U.S.C. § 102(e)

Appellant does not provide separate arguments with respect to the rejection of claims 61, 62, and 64. Therefore, we select claim 61 as being representative of the group. 37 C.F.R. § 41.37(c)(1)(vii).

Appellant argues that Chen does not disclose the features recited in claim 61 because “Chen clearly does not disclose or suggest that server 101 receives additional attack information from routers 106, 107, 109 and 110, much less communicates information associated with the additional attack information to attack host 113” (App. Br. 7-8). However, such argument is not commensurate with the invention that is claimed, since limitations cannot be confined to a specific embodiment in Appellant’s Specification, and thus, cannot to be read into the claims from the Specification. See *In re Van Geuns*, 988 F.2d at 1184.

Appellant’s claims simply do not place any limitation on what the “central management system” or the “information associated with the additional attack information” or the “first device” is to be, to represent, or to mean, other than that the central management system communicates information associated with additional attack information to the first device. Appellant’s arguments that Chen differs from Appellant’s invention because it also discloses a server 101 which does not receive “additional attack information” from routers 106, 107, 109, and 110, and which does not communicate with attack host 113, are not commensurate with the invention

that is claimed. Accordingly, the issue is whether Chen discloses a system which communicates information associated with attack information to a first device (Claim 61).

We generally agree with the Examiner's finding that Chen discloses the claimed elements on appeal beginning at page 3 of the Answer, and the Examiner's corresponding responsive arguments beginning at page 16 of the Answer.

Chen discloses a mobile packet filtering program installed on an edge router 102 which sends an attack source retrieval module holding the information on the attack packets currently being retrieved to the upstream routers 103, 104, and 111, wherein the attack source retrieval module retrieves the optimum positions for defending against the attack and sends back the results to the downstream routers that are the source of the transmissions (FF 1). We find the mobile packet filtering program and the attack source retrieval modules sent to the upstream routers 103, 104, and 111 of Chen to be a "central management system" which communicates "information associated with the additional attack information" to a first device such as a downstream router which is the source of the transmission.

Accordingly, we agree with the Examiner's finding that Chen discloses "communicating, by the central management system, information associated with the additional attack information to the first device" (Claim 61). Thus, we conclude that Appellant has not shown that the Examiner

erred in rejecting claim 61 (and claims 62 and 64 that fall therewith) as being anticipated by Chen. *See* 37 C.F.R. § 41.37(c)(1)(vii).

35 U.S.C. § 103(a)

Claims 1, 3-6, 9-15, 17, 18, 20-29, 32, and 40

Appellant does not provide separate arguments with respect to the rejection of claims 1, 3-6, 9-15, 17, 18, 20-29, 32, and 40. Therefore, we select independent claim 1 as being representative of the group. 37 C.F.R. § 41.37(c)(1)(vii).

Appellant argues that “[n]either Goldstone nor Fedyk, taken singly or in combination, discloses or suggests using a link state routing protocol or a path vector routing protocol to forward attack information” and that “the alleged motivation to combine these references does not meet the requirements of 35 U.S.C. § 103” (App. Br. 10). Accordingly, the issue is whether one having ordinary skill in the art at the time the invention was made would have combined Goldstone and Fedyk to “forward the attack information to the network using a link state routing protocol or a path vector routing protocol” (Claim 1).

The Examiner’s finding as to the obviousness to combine the references, beginning at page 5 of the Answer, and the Examiner’s corresponding responsive arguments beginning at page 16 of the Answer, comply with the requirements of the above-noted case law. The Examiner finds that “[i]t would have been obvious for someone of ordinary skill at the time of the invention to improve on Goldstone invention by using the link

state routing protocol method of Fedyk in order to provide a rapid response to DOS attack and thus reduce the time taken to recover from the attack” (Ans. 5).

Goldstone discloses, upon detection of an attack, communicating upstream to the ISP router (FF 2). Fedyk discloses utilizing link state routing protocols (FF 3). We agree with the Examiner’s finding that Goldstone’s communicating attack information to the ISP router to be forwarding attack information to the network, and that “Fedyk discloses using a link state routing protocol” (Ans. 16). We also agree with the Examiner’s finding that it would have been obvious to combine the teachings of Fedyk and Goldstone, to forward attack information to the network using a link state routing protocol.

Since Appellant has provided no evidence that incorporating Fedyk’s use link state routing protocol to Goldstone’s forwarding of information was “uniquely challenging or difficult for one of ordinary skill in the art,” *Leapfrog Enter., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007), nor has Appellant presented evidence that this incorporation yielded more than expected results, we find that Appellant’s invention is simply an arrangement of the known teaching of using link state routing protocol with the known teaching of forwarding information.

Contrary to Appellant’s assertion that there must be “motivation to combine these references” to “meet the requirements of 35 U.S.C. § 103” (App. Br. 10), an obviousness determination is not the result of a rigid

formula disassociated from the consideration of the facts of a case, and the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not. See *Leapfrog*, 485 F.3d at 1161. The test for obviousness is not that the claimed invention must be expressly suggested in any one or all of the references, but rather what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 414, 425 (CCPA 1981); *In re Young*, 927 F.2d 588, 591 (Fed. Cir. 1991).

We find that a person of ordinary skill will be able to fit the teachings of Goldstone and Fedyk together like pieces of a puzzle since the person of ordinary skill is also a person of ordinary creativity, not an automaton. See *KSR*, 127 S. Ct. at 1742. Accordingly, we conclude that Appellant has not shown that the Examiner erred in finding that the combination of Goldstone and Fedyk discloses a device configured to “forward the attack information to the network using a link state routing protocol or a path vector routing protocol” (Claim 1). Thus, we conclude that Appellant has not shown that the Examiner erred in rejecting independent claim 1 (and claims 3-6, 9-15, 17, 18, 20-29, 32, and 40 that fall therewith) as being unpatentable over Goldstone and Fedyk. See 37 C.F.R. § 41.37(c)(1)(vii).

Claim 2

As to claim 2, Appellant provides the same argument as presented for claim 1 from which it depends, and adds the argument that “Goldstone, however, does not disclose that the firewall filter is able to forward attack

information using a link state routing protocol or a path vector routing protocol, as required by claim 2” (App. Br. 12). However, such argument is not commensurate with the claimed invention since such firewall filter limitation being “able to forward attack information using a link state routing protocol or a path vector routing protocol” is not recited in claim 2, and cannot to be read into the claim from the Specification.

Claim 2 recites “the first device comprises a firewall filter.” The Examiner finds that “Goldstone combined with Fedyk, teaches about a system of claim 1, wherein the first device comprises a firewall filter” (Ans. 5). Appellant provides no argument to dispute that the Examiner has correctly shown where this claimed element appears in the prior art. Accordingly, we conclude that Appellant has not shown that the Examiner erred in rejecting claim 2 as unpatentable over Goldstone and Fedyk.

Claims 33-38, 41-43, 45-48, 50, and 51

As to claims 33-38, 41-43, 45-48, 50, and 51, Appellant does not provide separate arguments with respect to the rejection of the claims. Therefore, we select independent claim 33 as being representative of the group.

Regarding claim 33, Appellant provides the same argument as claim 1 of “neither Goldstone nor Fedyk discloses or suggest using a link state routing protocol or a path vector routing protocol,” and adds the argument that “[i]n addition, neither of these references discloses or suggests using a markup language protocol or a hypertext protocol” (App. Br. 13). However,

such argument is not commensurate with the invention that is claimed, since such “in addition” limitation is not recited in the claims, and cannot to be read into the claims from the Specification.

In particular, claim 33 recites “using a link state routing protocol, a path vector routing protocol, a markup language protocol or a hypertext protocol” (emphasis added). As discussed above, the Examiner finds that “Fedyk discloses using a link state routing protocol” (Ans. 16). Appellant provides no argument to dispute that the Examiner has correctly shown where this claimed element appears in the prior art. We agree with the Examiner that the combination of Goldstone and Fedyk discloses “using a link state routing protocol, a path vector routing protocol, a markup language protocol or a hypertext protocol” (Claim 33).

Appellant also asserts that there must be “motivation to combine these references” to “meet the requirements of 35 U.S.C. § 103” (App. Br. 14). However, as discussed above, obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a case, but rather, the test for obviousness is rather what the combined teachings of the references would have suggested to those of ordinary skill in the art. As set forth above, we find that a person of ordinary would have been able to combine the teachings of Goldstone and Fedyk together.

Accordingly, we conclude that Appellant has not shown that the Examiner erred in rejecting claim 33 (and claims 34-38, 41-43, 45-48, 50, and 51 that fall therewith) as being unpatentable over Goldstone and Fedyk.

Claims 19, 30, 31, and 49

Appellant argues that “the alleged motivation to combine these three references [Goldstone, Fedyk, and Nguyen] does not meet the requirements of 35 U.S.C. § 103” (App. Br. 15). Accordingly, the issue is whether one having ordinary skill in the art at the time the invention was made would have combined the teachings of Goldstone, Fedyk, and Nguyen.

The Examiner’s finding as to the obviousness to combine the references beginning at page 18 of the Answer complies with the requirements of the above-noted case law. The Examiner finds that “[i]t would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Nguyen into the computer system of Goldstone invention to ensure that the information that is being transmitted to recovery form [sic] an attack is from an authorized source and not the attacker” (Ans. 18). We agree with the Examiner’s reasoned conclusion.

Appellant has provided no evidence that incorporating Nguyen’s teaching to the teachings of Goldstone and Fedyk was “uniquely challenging or difficult for one of ordinary skill in the art,” See *Leapfrog Enter., Inc.* at 1162, nor has Appellant presented evidence that this incorporation yielded more than expected results.

Contrary to Appellant’s assertion that there must be “motivation to combine these references” to “meet the requirements of 35 U.S.C. § 103” (App. Br. 10), as discussed above, an obviousness determination is not the

result of a rigid formula disassociated from the consideration of the facts of a case. We find that a person of ordinary skill will be able to fit the teachings of Goldstone and Fedyk together.

Accordingly, we conclude that Appellant has not shown that the Examiner erred in finding that the combination of Goldstone, Fedyk, and Nguyen discloses the invention claimed in claims 19, 30, 31, and 49. Thus, we conclude that Appellant has not shown that the Examiner erred in rejecting claims 19, 30, 31, and 49 as being unpatentable over the combination of Goldstone, Fedyk, and Nguyen.

CONCLUSIONS OF LAW

(1) Appellant has not shown that the Examiner erred in finding claims 61, 62, and 64 anticipated under 35 U.S.C. § 102(e) by Chen.

(2) Appellant has not shown that the Examiner erred in finding claims 1-6, 9-15, 17, 18, 20-29, 32-38, 40-43, 45-48, 50, and 51 unpatentable under 35 U.S.C. § 103(a) over the teachings of Goldstone and Fedyk.

(3) Appellant has not shown that the Examiner erred in finding claims 19, 30, 31, and 49 unpatentable under 35 U.S.C. § 103(a) over the teachings of Goldstone, Fedyk, and Nguyen.

(4) Claims 1-6, 9-15, 17-38, 40-43, 45-51, 61, 62, and 64 are not patentable.

Appeal 2008-1002
Application 10/080,865

DECISION

We affirm the Examiner's rejections of claims 61, 62, and 64 under 35 U.S.C. § 102(e) and claims 1-6, 9-15, 17-38, 40-43, and 45-51 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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